

Title (en)

Well logging apparatus and method with borehole compensation

Title (de)

Bohrlochuntersuchungsgerät und Verfahren mit Bohrlochkompensation

Title (fr)

Dispositif de mesure de puits et procédé avec compensation du puits

Publication

EP 0715188 A3 19980520 (EN)

Application

EP 95308570 A 19951129

Priority

US 34935594 A 19941202

Abstract (en)

[origin: EP0715188A2] A well logging apparatus and technique for measuring formation resistivity is disclosed which provides advantages of borehole compensation without the requirement of having, for each transmitter to receiver pair spacing, an "equal and opposite" transmitter with the same spacing on the other side of the receiver pair. In one disclosed embodiment there are provided two transmitting antennas (T1,T2) at equal and opposite spacing from the midpoint of the receiving antenna pair (R1,R2), and a third transmitting antenna (T3) at a different spacing from the midpoint of the receiving antenna pair (R1,R2), without the need for providing a fourth transmitting antenna to obtain the benefits of borehole compensation. This reduces the complexity and cost of adding additional depths of investigation to a logging tool, while retaining the advantages of borehole compensation. In another disclosed embodiment at least three transmitting antennas are provided with at least one of them (T2) on one side of the receiving antenna pair (R1,R2) and at least two of them (T1,T3) on the other side of the receiving antenna pair (R1,R2). In this embodiment, none of the spacings between respective transmitting antennas and the midpoint of the receiving antenna pair are the same.

IPC 1-7

G01V 3/30

IPC 8 full level

G01V 3/30 (2006.01)

CPC (source: EP US)

G01V 3/30 (2013.01 - EP US)

Citation (search report)

- [X] US 5187661 A 19930216 - SINCLAIR PAUL I [US]
- [PX] WO 9524663 A1 19950914 - BAKER HUGHES INC [US]
- [A] MACK S G ET AL: "MWD TOOL ACCURATELY MEASURES FOUR RESISTIVITIES", OIL AND GAS JOURNAL, vol. 90, no. 21, 25 May 1992 (1992-05-25), pages 42 - 46, XP000270060

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